

CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

October 19, 2007

H.R. 3776 Energy Storage Technology Advancement Act of 2007

As ordered reported by the House Committee on Science and Technology on October 16, 2007

SUMMARY

H.R. 3776 would authorize the appropriation of \$195 million a year over the 2009-2014 period for the Department of Energy's (DOE's) energy storage research activities. Assuming appropriation of the authorized amounts, CBO estimates that implementing H.R. 3776 would cost \$638 million over the 2008-2012 period and about \$530 million after 2012. Enacting H.R. 3776 would not affect direct spending or revenues.

H.R. 3776 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of H.R. 3776 is shown in the following table. The costs of this legislation fall within budget function 250 (general science, space, and technology).

	By Fiscal Year, in Millions of Dollars				
	2008	2009	2010	2011	2012
CHANGES IN SPENDING SUBJ	ECT TO A	PPROPRIA	ATION a		
Basic Research for Energy Storage Technology					
Authorization Level	0	50	50	50	50
Estimated Outlays	0	23	43	48	50
Applied Research for Energy Storage Technology					
Authorization Level	0	80	80	80	80
Estimated Outlays	0	36	68	76	80
Energy Storage Systems Demonstration Programs					
Authorization Level	0	30	30	30	30
Estimated Outlays	0	14	26	29	30
Vehicle Energy Storage Demonstration Programs					
Authorization Level	0	30	30	30	30
Estimated Outlays	0	14	26	29	30
Secondary Applications of Electric Drive Vehicle Batteries					
Authorization Level	0	5	5	5	5
Estimated Outlays	0	2	4	5	5
Total Changes					
Authorization Level	0	195	195	195	195
Estimated Outlays	0	89	167	187	195

Note: Under the bill, an additional \$195 million a year would be authorized in 2013 and 2014.

BASIS OF ESTIMATE

For this estimate, CBO assumes that H.R. 3776 will be enacted during fiscal year 2008 and that the entire amounts authorized will be appropriated for each fiscal year.

H.R. 3776 would authorize the appropriation of \$195 million a year over the 2009-2014 period for DOE's energy storage research programs in such areas as electric drive vehicles and electricity transmission and distribution.

The bill would specifically authorize the appropriation of \$50 million a year through 2014 to award grants to the public, private, and academic sectors to support research in such areas

a. A full-year 2008 appropriation for the Department of Energy has not yet been provided

as surface and interface dynamics and thermal behavior (i.e., how a system burns). Under the bill, another \$80 million annually would be authorized to be appropriated for applied research on batteries, compressed air energy systems, and ultracapacitors.

H.R. 3776 would also authorize the appropriation of \$60 million a year through 2014 for energy storage demonstration programs. Of that amount, \$30 million a year would be authorized to be appropriated for electricity storage demonstration programs to research the integration of renewable energy sources into the electric power supply and the use of advanced energy storage for peak load management of homes and businesses. Another \$30 million a year would be authorized to be appropriated for vehicle energy storage demonstration programs to advance the use of electricity in the transportation sector.

Based on the historical spending patterns of DOE research and development programs, CBO estimates that implementing H.R. 3776 would cost \$638 million over the 2008-2012 period and about \$530 million after 2012.

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

H.R. 3776 contains no intergovernmental or private-sector mandates as defined in UMRA. The bill would authorize several new research and demonstration programs for electric energy storage that would benefit state and local governments. Any costs they might incur, including matching funds, would be incurred voluntarily.

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